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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,162	12/23/1999	KAZUHIRO MATSUBAYASHI	35.C14148	7096

5514 7590 07/18/2003

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EXAMINER	
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ART UNIT	PAPER NUMBER
2624	4

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/471,162	MATSUBAYASHI, KAZUHIRO	
	Examiner	Art Unit	
	King Y. Poon	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,11-19,22-30 and 33* is/are rejected.

7)☒ Claim(s) *9,10,20,21,31 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 December 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The combined declaration and power of attorney filed on 3/3/2000 has been received.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan on 12/28/1998, and 12/9/1999. It is noted, however, that applicant has not filed a certified copy of the Japan applications as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The change made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4, 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyaza (US 5,896,470).

Regarding claim 1: Miyaza teaches an information processing apparatus (digital copy machine, column 70, line 30) which comprises: area size determining means (calculating means that calculates a width/size of the line that constructs a magnified character, column 72, lines 29-32) for determining the size (width of a line of a magnified character, column 72, line 15) of a document output area (the magnified character is to be outputted to an area of a print sheet, column 72, lines 43-48; therefore, the size of the magnified character is the document output area) when document data (e.g., characters and image data, column 72, lines 23-25, 50, fig. 91a, that is to be printed) is outputted to an output apparatus (output means, column 72, lines 38-42) based on layout information (the size of the character, e.g., sized of the magnified character, column 71, lines 35-45, and the different shape and position of characters, e.g., 50, fig. 91a); information memory means (main memory, column 70, lines 50-55) for storing size information (the values of the highest and lowest limits, column 70, lines 54-56) having a relation between the size of the document output area (the highest and the lowest limit determine the range of the size of the magnified character to be outputted, column 71, lines 46-53) and the size of an object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55) included in the document data (document data outputted, column 72, lines 23-25

includes actual sized of the character); object size determining means (the circuit or program step S40 of fig. 90 that determines the actual size of the character to be outputted, e.g., outputting the size of the magnified character or the size of the corrected character, column 71, lines 39-55) for determining the size of the object (the actual size of character to be printed, e.g., character 62, or 63, column 71, lines 35-55) based on the size (the size of the magnified characters, column 71, lines 35-40) determined by the area size determining means and the size information (the values of the highest and lowest limits, column 70, lines 54-56) stored in the information memory means; magnification changing means (the circuit or program step S43 of fig. 90) for changing (correction, column 71, lines 50-55) the magnification (column 71, lines 50-51) of the object (character) based on the size (e.g., the size of the character is determined to be the size of the predetermined range, column 71, line 50-52) determined by the object size determining means (no of S40, fig. 90); and control means (compositing means, column 72, lines 20-25, lines 36-38) for outputting the object with the magnification changed by the magnification changing means to the output apparatus (column 72, lines 20-25).

Regarding claim 2: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range is for each objects such as object 62, column 71, lines 45-55).

Regarding claim 3: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F,

G, H, and their combinations are all different in attribution/shape, fig. 91a) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55).

Regarding claim 4: Miyaza teaches wherein the size information comprises function information. (Since the actual size of the character that is to be outputted is a function of magnification rate, column 71, line 8, and the size of the character that is to be magnified by the magnification rate; (inherent properties of magnifying a character by a magnification rate); the highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

Regarding claim 12: Miyaza teaches an information processing method which comprises: an area size determining step (calculating a width/size of the line that constructs a magnified character, column 72, lines 29-32) of determining the size (width of line, column 72, line 15) of a document output area (the magnified character is to be outputted to an area of a print sheet, column 72, lines 43-48) when document data (e.g., the characters and image data, column 72, lines 23-25, 50, fig. 91a that is to be printed) is outputted to an output apparatus (output means, column 72, lines 38-42) based on layout information (the size of the character, e.g., sized of the magnified character, column 71, lines 35-45, and the different shape and position of characters, e.g., 50, fig. 91a); an object size determining step (S40 of fig. 90 that determines the actual size of the character to be outputted, e.g., outputting the size of the magnified character or the size of the corrected character, column 71, lines 39-55) of determining the size of an object (the actual size

of character to be printed, e.g., character 62, or 63, column 71, lines 35-55) based on size information (the values of the highest and the lowest limits, column 70, lines 54-56) having a relation between the size of the document output area (the highest and the lowest limit determine the range of the size of the magnified character/document output area to be outputted, column 71, lines 46-53) stored in information memory means (the size of the magnified character is to be compared with the limits in the judging means, column 72, lines 14-20; Inherently, when a signal is compared with other signal in a processor, both signals must be stored in a memory/circuit that prevents the signal from disappearing for at least the time that would take the processor to complete the comparing process; therefore, the size of the magnified character/document output area is stored) and the size of the object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55) included in the document data (actual character size data is included in the document data, column 72, lines 20-25), the size (the size of the magnified character, column 71, lines 35-40) determined in the area size determining step, and size information (values of the highest and lowest limits, column 70, lines 54-56) stored in the information memory means (e.g., the main memory column 70, lines 50-55, note; the main memory and the circuit that prevent the size of the magnified character from disappearing forms the information memory means); a magnification changing step (S43, fig., 90) of changing (correction, column 71, lines 50-55) the magnification (column 71, lines 50-51) of the object

(character) based on the size (e.g., the size is determined to be the predetermined range, column 71, lines 50-52) determined in the object size determining step (no of S40, fig. 90); and an output step (the step of outputting character data from the compositing means to the output means, column 72, lines 20-25; i.e., the character data is first composited by the compositing means and the composited character data is then outputted by the output means; therefore, the composited character data is outputted from the compositing means to the outputting means) of outputting the object with the changed magnification to the output apparatus (output means, column 72, line 24).

Regarding claim 13: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55).

Regarding claim 14: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F, G, H, and their combinations are all different in attribution/shape, fig. 91a) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55).

Regarding claim 15: Miyaza teaches wherein the size information comprises function information. (Since the actual size of the character that is to be outputted is a function of magnification rate, column 71, line 8, and the size of the character that is to be magnified by the

magnification rate; (inherent properties of magnifying a character by a magnification rate); the highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaza (US 5,896,470).

Regarding claim 23: Miyaza teaches an image processing CPU (column 70, lines 30-35) performs function steps, comprising: an area size determining step (calculating a width/size of the line that constructs a magnified character, column 72, lines 29-32) of determining the size (width of line, column 72, line 15) of a document output area (the magnified character is to be outputted to an area of a print sheet, column 72, lines 43-48) when document data (e.g., the characters and image data, column 72, lines 23-25, 50, fig. 91a, that is to be printed) is outputted to an output apparatus (output means, column 72, lines 38-42) based on layout information (the size of the character, e.g., sized of the magnified character, column 71, lines 35-45, and the different shape

and position of characters, e.g., 50, fig. 91a); an object size determining step (step S40 of fig. 90 that determines the actual size of the character to be outputted, e.g., outputting the size of the magnified character or the size of the corrected character, column 71, lines 39-55) of determining the size of an object (the actual size of character to be printed, e.g., character 62, or 63, column 71, lines 35-55) based on size information (the values of the highest and the lowest limits, column 70, lines 54-56) having a relation between the size of the document output area (the highest and the lowest limit determine the range of the size of the magnified character to be outputted, column 71, lines 46-53) stored in information memory means (the sized of the magnified character is to be compared with the limits in the judging means, column 72, lines 14-20; Inherently, when a signal is compared with other signal in a processor, both signals must be stored in a memory/circuit that prevents the signal from disappearing for at least the time that would take the processor to complete the comparing process) and the size of the object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55) included in the document data (character size data is included in the document data, column 72, lines 23-35), the size (the size of the magnified character, column 71, lines 35-40) determined in the area size determining step, and size information (values of the highest and lowest limits, column 70, lines 54-56) stored in the information memory means (e.g., the main memory column 70, lines 50-55, note: the main memory and the circuit that prevent the size of the magnified

character from disappearing form the information memory means); a magnification changing step (S43, fig., 90) of changing (correction, column 71, lines 50-55) the magnification (column 71, lines 50-51) of the object (character) based on the size (e.g., the size is determined to be the predetermined range, column 71, lines 50-52) determined in the object size determining step (no of S40, fig. 90); and an output step (the step of outputting character data from the compositing means to the output means, column 72, lines 20-25; i.e., the character data is first composited by the compositing means and the composited character data is then outputted by the output means; therefore, the composited character data is outputted from the compositing means to the outputting means) of outputting the object with the changed magnification to the output apparatus (output means, column 72, line 24).

Miyaza, in embodiment 41, does not teach a memory medium which stores a computer readable program to control the CPU.

However, Miyaza, in embodiment 30 teaches a memory medium (ROM 102, column 52, lines 40-45) which stores a computer readable program (column 52, line 42) for controlling a CPU. (CPU 101, column 52, lines 40-43)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Miyaza' CPU to include: a memory medium which stores a computer readable program to control the CPU for performing processing steps.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the CPU of Miyaza because of the following reasons: (a)

using a computer program for controlling a CPU would have reduced the price of the CPU because it would reduce all the additional hardware that is required for the CPU to performing all the functions; it would also have allowed the same type of CPU to be programmed differently to perform different functions; and (b) using a memory for storing the program would have prevented the program from being lost such that the program can be used over and over again to control the CPU.

Regarding claim 24: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range is for each objects such as object 62, column 71, lines 45-55).

Regarding claim 25: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F, G, H, and their combinations are all different in attribution/shape, fig. 91a) and each (unit, column 71, lines 19-20) of the plurality of objects has the size information (the highest and lowest limits of the range is for each objects such as object 62, column 71, lines 45-55).

Regarding claim 26: Miyaza teaches wherein the size information comprises function information. (Since the actual size of the character that is to be outputted is a function of magnification rate, column 71, line 8, and the size of the character that is to be magnified by the magnification rate; (inherent properties of magnifying a character by a magnification rate); the

highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

7. Claims 5-8, 11, 16-19, 22, 27-30, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaza (US 5,896,470) in view of Aoyama (US 5,136,399).

Regarding claim 5: Miyaza teaches an information processing apparatus (digital copying machine, column 70, line 30) which comprises: layout information memory means (main memory 73, column 71, lines 10-15) for storing layout information (e.g., the position of where the image of the document is to be placed, fig. 91a, the shape of the character, fig. 91a, are in the image data stored in the main memory) when document data (image data, column 71, lines 10-15, e.g., characters 50, fig. 91a) is outputted to an output apparatus (output means, column 72, line 24; the image data is reproduced and outputted to the output means, column 72, lines 20-25); a display screen (41, fig. 4, column 8, lines 65-66) for displaying; and associating means (magnifying means, column 72, lines 12-13, and judging means, column 72, lines 20-21) for associating the document object (character 62 or 63, column 71, lines 45-55) with size information (values of the highest and lowest limits, column 70, lines 54-56) having a relation between the size of a document output area (the highest and the lowest limit determine the range of the size of the magnified character to be outputted, column 71, lines 46-53; the size of the magnified character is the size of a document output area) and the size of the object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the

magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55; the size of the object is the actual print size of the character when the document is printed) when the document data is outputted (image data of the document is reproduced and outputted from compositing means, column 72, lines 21-25, to the output means) to the output apparatus (output means, column 72, lines 24) based on the layout information (e.g., the position of where the image of the document is to be placed, fig. 91a, the shape of the character, fig. 91a).

Miyaza does not teach display control means for displaying the object included in the document on the display screen.

Aoyama, in the same area of copying document using a copier (column 4, line 30), teaches display control means (21, fig. 2) for displaying the object (e.g., circle graph 30, column 7, lines 43-45; column 7, lines 29-34) included in the document on a display screen. (Display unit 22, column 7, line 32)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display of Miyaza to include: display control means for displaying the object included in the document on the display screen.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display of Miyaza by the teaching of Aoyama because of the following reasons: (a) using a display controller to control a display would have allowed other controllers, such as the image processing controller 74, of fig. 5, Miyaza, of the copier, to

perform image processing function without having to control the display; it would have increased the processing speed of the copier to increase productivity; and (b) displaying the object would have allowed users to view the object first before printing and thereby reduces copying error such as copying the wrong document or a part of the object is not being copied.

Note: the document object is being displayed after the modification. In other word, the document object is the same object that is being displayed. Therefore, the size information that is associated with the document object is also associated with the displayed object.

Regarding claim 6: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 7: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F, G, H, and their combinations are all different in attribution/shape, fig. 91a) and the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 8: Miyaza teaches wherein the size information is function information. (Since the actual size of the character that is to be outputted is a function of magnification rate, column 71, line 8, and the size of the character that is to be magnified by the magnification rate;

(inherent properties of magnifying a character by a magnification rate); the highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

Regarding claim 11: Miyaza teaches the information processing apparatus further comprising output means (column 72, lines 24-25) for outputting the object included in the document data based on the size information. (Column 71, lines 35-55)

Regarding claim 16: Miyaza teaches an information processing method which comprises: a memory step of storing layout information (image data stored in the main memory, column 71, lines 10-15, the image data give enough data such that an image, such as ABC, fig. 91a would be reproduced; the image A, as an example, has its own layout information such as the position of the letter A is before letter B and C and the letter A has a unique shape; therefore, image data has layout information) when document data (image data, column 71, lines 10-15, e.g., characters 50 fig. 91a) is outputted to an output apparatus (output means, column 72, line 24; the image data is reproduced and outputted to the output means, column 72, lines 20-25) in layout memory means (the layout information of the document data is stored in main memory 73, column 71, lines 10-15); a display screen (41, fig. 4, column 8, lines 65-66) for displaying; and an associating step of (magnifying means, column 72, lines 12-13, and judging means, column 72, lines 20-21 associates an object with two size limits such that the object being printed is within the size limits, column 71, lines 24-55) associating a document object (character 62 or 63, column 71, lines 45-55) with size information (values of the highest and lowest limits, column 70, lines 54-56) having a relation

between the size of a document output area (the highest and the lowest limit determine the range of the size of the magnified character to be outputted, column 71, lines 46-53; the size of the magnified character is the size of a document output area) and the size of the object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55; the size of the object is the actual print size of the character when the document is printed) when the document data is outputted (image data of the document is reproduced and outputted from compositing means, column 72, lines 21-25, to the output means) to the output apparatus (output means, column 72, lines 24) based on the layout information (e.g., the position of where the image of the document is to be placed, fig. 91a, the shape of the character, fig. 91a).

Miyaza does not teach a displaying step of displaying the object included in the document on the display screen.

Aoyama, in the same area of copying document using a copier (column 4, line 30), teaches display control means (21, fig. 2) for displaying the object (e.g., circle graph 30, column 7, lines 43-45; column 7, lines 29-34) included in the document on a display screen. (Display unit 22, column 7, line 32)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display/image processing steps of Miyaza to include: a displaying step of displaying the object included in the document on the display screen.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display/image processing method of Miyaza by the teaching of Aoyama because displaying the object would have allowed users to view the object first before printing and thereby reduces copying error such as copying the wrong document or a part of the object is not being copied.

Note: the document object is being displayed after the modification. In other word, the document object is the same object that is being displayed. Therefore, the size information that is associated with the document object is also associated with the displayed object.

Regarding claim 17: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and the size information (the highest and lowest limits of the range is for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 18: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F, G, H, and their combinations are all different in attribution/shape, fig. 91a) and the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 19: Miyaza teaches wherein the size information is function information. (Since the actual size of the character that is to be outputted is a function of magnification rate,

column 71, line 8, and the size of the character that is to be magnified by the magnification rate; (inherent properties of magnifying a character by a magnification rate); the highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

Regarding claim 22: Miyaza teaches the information processing method further comprising an output step (column 72, lines 24-25) of outputting the object included in the document data based on the size information. (Column 71, lines 35-55)

Regarding claim 27: Miyaza teaches a CPU (column 70, lines 30-35) which performs function steps, comprises: a memory step of storing layout information (image data stored in the main memory, column 71, lines 10-15, the image data provide enough information such that an image, such as ABC, fig. 91a would be reproduced; the image A, as an example, has its own layout information such as the position of the letter A is before letter B and C and the letter A has its unique shape; therefore, image data has layout information) when document data (image data, column 71, lines 10-15, e.g., character 50, fig. 91a) is outputted to an output apparatus (output means, column 72, line 24; the image data is reproduced and outputted to the output means, column 72, lines 20-25) in layout memory means (the layout information of the document data is stored in main memory 73, column 71, lines 10-15); a display screen (41, fig. 4, column 8, lines 65-66) for displaying; and an associating step of (magnifying means, column 72, lines 12-13, and judging means, column 72, lines 20-21 associates an object with two size limits such that the object being printed is within the size limits, column 71, lines 24-55) associating a document

object (character 62 or 63, column 71, lines 45-55) with size information (values of the highest and lowest limits, column 70, lines 54-56) having a relation between the size of a document output area (the highest and the lowest limit determine the range of the size of the magnified character to be outputted, column 71, lines 46-53; the size of the magnified character is the size of a document output area) and the size of the object (the highest and lowest limits determine the actual size of the character that is to be outputted; e.g., outputting the size of the magnified character when the magnified character is within the limits or outputting the size of the corrected character when the magnified character is outside the limits, column 71, lines 39-55; the size of the object is the actual print size of the character when the document is printed) when the document data is outputted (image data of the document is reproduced and outputted from compositing means, column 72, lines 21-25, to the output means) to the output apparatus (output means, column 72, lines 24) based on the layout information (e.g., the position of where the image of the document is to be placed, fig. 91a, the shape of the character, fig. 91a).

Miyaza does not teach displaying step of displaying the object included in the document on the display screen.

Aoyama, in the same area of copying document using a copier (column 4, line 30), teaches display control means (21, fig. 2) for displaying the object (e.g., circle graph 30, column 7, lines 43-45; column 7, lines 29-34) included in the document on a display screen. (Display unit 22, column 7, line 32)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display/image processing steps of Miyaza to include: a displaying step of displaying the object included in the document on the display screen.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the display/image processing method of Miyaza by the teaching of Aoyama because displaying the object would have allowed users to view the object first before printing and thereby reduces copying error such as copying the wrong document or a part of the object is not being copied.

Note: the document object is being displayed after the modification. In other word, the document object is the same object that is being displayed. Therefore, the size information that is associated with the document object is also associated with the displayed object.

Miyaza, in embodment 41, does not teach a memory medium which stores a computer readable program to control the CPU.

However, Miyaza, in embodiment 30 teaches a memory medium (ROM 102, column 52, lines 40-45) which stores a computer readable program (column 52, line 42) for controlling a CPU. (CPU 101, column 52, lines 40-43)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Miyaza/Aoyama's CPU to include: a memory medium which stores a computer readable program to control the CPU for performing processing steps.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the CPU of Miyaza/Aoyama because of the following reasons: (a) using a computer program for controlling a CPU would have reduced the price of the CPU because it would reduce all the additional hardware that is required for the CPU to performing all the functions; it would also have allowed the same type of CPU to be programmed differently to perform different functions; and (b) using a memory for storing the program would have prevented the program from being lost such that the program can be used over and over again to control the CPU.

Regarding claim 28: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) and the size information (the highest and lowest limits of the range is for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 29: Miyaza teaches wherein the document data includes a plurality of objects (units of connected graphic, column 71, lines 15-20) different in attribution (A, B, C, E, F, G, H, and their combinations are all different in attribution/shape, fig. 91a) and the size information (the highest and lowest limits of the range are for each objects such as object 62, column 71, lines 45-55) is associated with each (unit, column 71, lines 19-20) of the plurality of objects.

Regarding claim 30: Miyaza teaches wherein the size information is function information. (Since the actual size of the character that is to be outputted is a function of magnification rate,

column 71, line 8, and the size of the character that is to be magnified by the magnification rate; (inherent properties of magnifying a character by a magnification rate); the highest and the lowest limits, column 70, lines 45-56, are limits for the function of the actual size of the character that is to be outputted)

Regarding claim 33: Miyaza teaches the method steps further comprising an output step (column 72, lines 24-25) of outputting the object included in the document data based on the size information. (Column 71, lines 35-55)

Allowable Subject Matter

8. Claims 8, 9, 20, 21, 31, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed of an image processing apparatus of associating an displayed object with size information.

Claims 9, and 10 identify the uniquely distinct features of "graph display means for displaying the function information as a graph on the display wherein the associating means associates the function information represented by the graph displayed by the graph display means with the object." The closest prior art, Miyaza (US 5,896,470) teaches associating a document

object with size information; Aoyama (US 5,136,399) teaches displaying a document object. Miyaza and Aoyama, either singularly or in combination, fail to anticipate or render the above limitations obvious (use in the combine with other claimed limitation).

Claims 20, 21, 31, and 32 identify the uniquely distinct features of "displaying the function information as a graph on the display wherein the function information represented by the graph displayed in the graph display step with the object is associated in the associating step." The closest prior art, Miyaza (US 5,896,470) teaches associating a document object with size information; Aoyama (US 5,136,399) teaches displaying a document object. Miyaza and Aoyama, either singularly or in combination, fail to anticipate or render the above limitations obvious (use in the combine with other claimed limitation).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rao et al (US 5,613,017) teaches image processing apparatus for processing image data among media having different image output sizes.

Gusmano (US 5,796,877) teaches a copier for automatically fitting an input image to the size of the output document.

Matsubara (US 5,148,295) teaches an image processing apparatus of inputting image information and modifying the input image information to change the size of the input image.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

July 13, 2003

King Yan Poon